

Notice of Allowability

Application No.

10/042,812

Examiner

Chris C. Chu

Applicant(s)

CHIANG, CHENG-LIEN

Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to afterfinal amendment filed 9/10/04.
2. ☒ The allowed claim(s) is/are 1-120.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 12/22/03; 1/27/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Examiner's Comments

1. The following issues were discussed in a telephonic interview with Applicant's representative, Mr. David Sigmond, on September 10, 2004:
 - a. Applicant had previously filed two petitions relating respectively to objections to the specification and drawings. (See postcard filing receipt dated 9/2/03.) While the examiner personally remembers seeing these petitions, they have been misplaced by the Office. Applicant's representative and the examiner discussed the objections upon which these petitions were based, and the examiner agreed that these objections were improper. Accordingly, the outstanding objections to the drawings and specification are withdrawn and the petitions are rendered moot.
 - b. Applicant had also filed an amendment that was also misplaced. (See postcard filing receipt dated 9/2/03.) Applicant has incorporated this prior amendment to the specification into the most recent amendment filed 9/10/04. As such, the issue of the missing prior amendment is also moot.
 - c. Applicant has agreed to file formal drawings, including a corrected label "143" that was erroneously labeled as "144." The examiner agreed that these changes would be proper.

Allowable Subject Matter

2. Claims 1-120 are allowed.

Art Unit: 2815

3. The following is an examiner's statement of reasons for allowance: it was generally known to form IC packages wherein the chip includes ball leads or "terminals" that extend through the bottom of the package or "housing" and also include leads that extend through the side periphery of the package, and wherein the terminals and leads are electrically connected to IC pads (see e.g., Washida '135, FIG 2). However, a search of the relevant prior art failed to disclose or reasonably suggest such a device further having at least the following features:

- a. a two-piece housing structure wherein the first and second housing portions are not integral (e.g., claim 1);
- b. a housing for such a device wherein the bottom surface of the insulative housing includes a peripheral portion adjacent to the side surfaces and a central portion within the peripheral portion and spaced from the side surfaces, wherein the peripheral portion protrudes downwardly from the central portion (e.g., claim 21); or restated, wherein the central portion is recessed relative to the peripheral portion (e.g., claim 31); or
- c. providing within such a device a terminal that protrudes downwardly from and is integral with the routing line (e.g., claim 61).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 2815

Conclusion

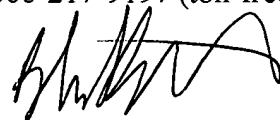
4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Washida et al. '135
- b. Chew et al. '388.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to B. William Baumeister whose telephone number is (571) 272-1722. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (571) 272-1664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



B. William Baumeister
Primary Examiner
Art Unit 2815

**B. WILLIAM BAUMEISTER
PRIMARY EXAMINER**

September 10, 2004